

What is claimed is:

1. An attaching method of attaching an additional image to a one-page image that is obtained by drawing one or more objects including at least one bitmap object in  
5 bitmap format in a predetermined sequence, the attaching method comprising:

a) determining whether or not an object that is to be drawn is a bitmap object;

b) if the object is determined to be a bitmap object  
10 in the step a), determining whether or not the object is a background object representing a background of the one-page image; and

c) if the object is determined to be a background object in the step b), drawing an additional image after  
15 drawing the background object.

2. The attaching method according to claim 1, wherein: the determination in the step a) is performed while drawing the one or more objects to obtain the one-page image; the determination in the step b) as to whether  
20 or not an object is a background object is performed every time the object was determined to be a bitmap object in the step a); and if the object is determined to be a background object in the step b), an additional image is drawn after the background object is drawn in the step c)  
25 but before another object that is to be drawn after the

background object has been drawn.

3. The attaching method according to claim 1, further comprising d) drawing the additional image before drawing any other object but the background object.

5 4. The attaching method according to claim 1, wherein the object is determined to be a background object in the step b) if the size of the object is substantially the same as the size of a recording medium on which the one-page image is printed out.

10 5. The attaching method according to claim 1, wherein the object is determined to be a background object in the step b) if a drawing region of the object and a drawing region of the additional image overlap and if a portion of the drawing region of the object that overlaps  
15 the drawing region of the additional image is white or a pale color.

6. The attaching method according to claim 1, wherein the object is determined to be a background object in the step b) if the object matches a registered  
20 background object.

7. The attaching method according to claim 1, wherein the object is determined to be a background object in the step b) if a background identification information is associated with the object, the background  
25 identification information denoting that the object is a

background object.

8. The attaching method according to claim 1, further comprising e) determining whether or not a re-draw setting has been made by a user, wherein the additional  
5 image is drawn in the step c) only if it is determined in the step e) that the re-draw setting has been made.

9. The attaching method according to claim 1, wherein the additional image is a watermark.

10. A drawing processing system comprising:  
10 storing means for storing a record file for one-page image, the record file including object records each representing an object;

record fetching means for fetching the object records one-by-one in a predetermined sequence from the record  
15 file;

object drawing means for analyzing the object record fetched by the record fetching means and for drawing an object of the object record;

determination means for determining whether or not an  
20 object corresponding to the object record fetched by the record fetching means is a background object in a bitmap format, the background object representing a background;  
and

additional image drawing means for drawing an  
25 additional image, wherein

if the determination means has determined that the object is a background object, the additional image drawing means draws the additional image after the object drawing means has drawn the object that was determined to be the background object.

11. The drawing processing system according to claim 10, wherein the additional image drawing means draws the additional image after the object drawing means has drawn the object but before the object drawing means draws another object that is to be drawn after the object has been drawn.

12. The drawing processing system according to claim 10, wherein the additional image drawing means draws the additional image before the object drawing means draws any object.

13. The drawing processing system according to claim 10, wherein the determination means includes a first determination means for determining whether or not the object is a bitmap object in a bitmap format, a second determination means for determining, if the object has been determined to be a bitmap object by the first determination means, whether or not the bitmap object represents a background, and a third determination means for determining that the object is a background object if the bitmap object has been determined to represent a

background by the second determination means.

14. The drawing processing system according to claim 13, wherein the second determination means determines that the bitmap object represents a background if the size of the bitmap object is substantially the same as the size of a recording medium onto which the one-page image is printed out.

15. The drawing processing system according to claim 13, wherein the second determination means determines that the bitmap object represents a background if a drawing region of the bitmap object overlaps a drawing region of the additional image and if a portion of the drawing region of the bitmap object that overlaps the drawing region of the additional image is white or a pale color.

16. The drawing processing system according to claim 15, wherein the second determination means determines that the bitmap object represents a background if the entirety of the portion of the bitmap object that overlaps the drawing region of the additional image is white or a pale color.

17. The drawing processing system according to claim 13, further comprising:

object generating means for, by application software, generating one or more objects for the one-page image;

record file generating means for generating a record

file including one or more object records corresponding to the respective one or more objects; and

background object storage means for storing background data representing a background object provided  
5 by the application software, wherein

the determination means determines that the bitmap object represents a background if the bitmap object matches the background object corresponding to the background data stored in the background object storage  
10 means.

18. The drawing processing system according to claim 10, further comprising:

generating means for, by application software, generating one or more objects for the one-page image;

15 record file generating means for generating a record file including one or more object records corresponding to the respective one or more objects, the record file further including a background identification information located in front of an object record representing a  
20 background object, the background identification information indicating that a corresponding object is a background object; and

the determination means determines that the object is a background object if the background identification  
25 information is attached to the object record that has been

5        fetched by the record fetching means.

19.    The drawing processing system according to claim 10, further comprising:

5        record file processing means for generating a  
processed record file from the one-page image that  
includes the object records drawn by the object drawing  
means and the additional image drawn by the additional  
image drawing means by sequentially converting objects  
10       included in the one-page image and an object of the  
additional image into the object records in the  
predetermined sequence;

15       conversion means for converting the object records of  
the processed record file into one of page description  
language data and raster data in the predetermined  
sequence.

20       20.    The drawing processing system according to claim  
10, wherein the object drawing means draws an object by  
converting a corresponding object record fetched by the  
record fetching means into one of page description  
20       language and raster data, and the additional image drawing  
means draws the additional image by converting the  
additional image into one of page description language and  
raster data.

25       21.    The drawing processing system according to claim  
10, further comprising:

generating means for, by application software,  
generating one or more objects for the one-page image; and  
record file generating means for generating a record  
file including one or more object records corresponding to  
5 the respective one or more objects, the record file  
further including a background identification information  
located in front of an object record representing a  
background object, the background identification  
information indicating that a corresponding object is a  
10 background object, wherein

the determination means determines whether or not the  
object is a background object and the additional image  
drawing means draws the additional image after the  
background object has been drawn only if the application  
15 software is a presentation software.

22. The drawing processing system according to claim  
19, wherein the determination means determines whether or  
not the object is a background object and the additional  
image drawing means draws the additional image after the  
20 background object has been drawn only if specified from an  
exterior.

23. The drawing processing system according to claim  
10, wherein the additional image is in bitmap format.

24. The drawing processing system according to claim  
25 10, wherein the additional image is a watermark.

25. A storing medium for storing a program of attaching an additional image to a one-page image that is obtained by drawing one or more objects including at least one bitmap object in bitmap format in a predetermined sequence, the program comprising the programs of:

a) determining whether or not an object that is to be drawn is a bitmap object;

b) if the object is determined to be a bitmap object, determining whether or not the object is a background object representing a background of the one-page image; and

c) if the object is determined to be a background object, drawing an additional image after drawing the background object.

26. The storing medium according to claim 25, wherein the determination by the program a) is performed while drawing the one or more objects to obtain the one-page image; the determination by the program b) as to whether or not an object is a background object is performed every time the object was determined to be a bitmap object by the program a); and if the object is determined to be a background object by the program b), an additional image is drawn after the background object is drawn by the program c) but before another object that is to be drawn after the background object has been drawn.

27. The storing medium according to claim 25, wherein the program further comprising the program of d) drawing the additional image before any other object but the background object has been drawn.

5        28. The storing medium according to claim 25, wherein the object is determined to be a background object by the program b) if the size of the object is substantially the same as the size of a recording medium on which the one-page image is printed out.

10        29. The storing medium according to claim 25, wherein the object is determined to be a background object by the program b) if a drawing region of the object and a drawing region of the additional image overlap and if a portion of the drawing region of the object that overlaps  
15 the drawing region of the additional image is white or a pale color.

      30. The storing medium according to claim 25, wherein the object is determined to be a background object by the program b) if the object matches a registered  
20 background object.

      31. The storing medium according to claim 25, wherein the object is determined to be a background object by the program b) if a background identification information is associated with the object, the background  
25 identification information denoting that the object is a

background object.

32. The storing medium according to claim 25,  
wherein the program further comprising the program of e)  
determining whether or not a re-draw setting has been made  
5 by a user, wherein the additional image is drawn by the  
program c) only if it is determined by the program e) that  
the re-draw setting has been made.

33. The storing medium according to claim 25,  
wherein the additional image is a water mark.

10 34. A drawing processing device comprising:

storing means for storing a recode file for one-page  
image, the record file including object records each  
representing an object;

15 record fetching means for fetching the object records  
one-by-one in a predetermined sequence from the record  
file;

object drawing means for analyzing the object record  
fetched by the record fetching means and for drawing an  
object of the object record;

20 determination means for determining whether or not an  
object corresponding to the object record fetched by the  
record fetching means is a background object in a bitmap  
format, the background object representing a background;  
and

25 additional image drawing means for drawing an

additional image, wherein

if the determination means has determined that the object is a background object, the additional image drawing means draws the additional image after the object drawing means has drawn the object that was determined to  
5 be the background object.

35. The drawing processing device according to claim 34, wherein the additional image drawing means draws the additional image after the object drawing means has drawn  
10 the object but before the object drawing means draws another object that is to be drawn after the object has been drawn.

36. The drawing processing device according to claim 34, wherein the additional image drawing means draws the  
15 additional image before the object drawing means draws any object.

37. The drawing processing device according to claim 34, wherein the determination means includes a first determination means for determining whether or not the  
20 object is a bitmap object in a bitmap format, a second determination means for determining, if the object has been determined to be a bitmap object by the first determination means, whether or not the bitmap object represents a background, and a third determination means  
25 for determining that the object is a background object if

the bitmap object has been determined to represent a background by the second determination means.

38. The drawing processing device according to claim 37, wherein the second determination means determines that  
5 the bitmap object represents a background if the size of the bitmap object is substantially the same as the size of a recording medium onto which the one-page image is printed out.

39. The drawing processing device according to claim  
10 37, wherein the second determination means determines that the bitmap object represents a background if a drawing region of the bitmap object overlaps a drawing region of the additional image and if a portion of the drawing region of the bitmap object that overlaps the drawing  
15 region of the additional image is white or a pale color.

40. The drawing processing device according to claim 39, wherein the second determination means determines that the bitmap object represents a background if the entirety of the portion of the bitmap object that overlaps the  
20 drawing region of the additional image is white or a pale color.

41. The drawing processing device according to claim 37, further comprising:

object generating means for, by application software,  
25 generating one or more objects for the one-page image;

record file generating means for generating a record file including one or more object records corresponding to the respective one or more objects; and

background object storage means for storing  
5 background data representing a background object provided by the application software, wherein

the second determination means determines that the bitmap object represents a background if the bitmap object matches the background object corresponding to the  
10 background data stored in the background object storage means.

42. The drawing processing device according to claim 34, further comprising:

generating means for, by application software,  
15 generating one or more objects for the one-page image;

record file generating means for generating a record file including one or more object records corresponding to the respective one or more objects, the record file further including a background identification information  
20 located in front of an object record representing a background object, the background identification information indicating that a corresponding object is a background object; and

the determination means determines that the object is  
25 a background object if the background identification

information is attached to the object record that has been fetched by the record fetching means.

43. The drawing processing device according to claim 34, further comprising:

5        record file processing means for generating a processed record file from the one-page image that includes the object records drawn by the object drawing means and the additional image drawn by the additional image drawing means by sequentially converting objects  
10       included in the one-page image and an object of the additional image into the object records in the predetermined sequence;

         conversion means for converting the object records of the processed record file into one of page description  
15       language data and raster data in the predetermined sequence.

         44. The drawing processing device according to claim 34, wherein the object drawing means draws an object by converting a corresponding object record fetched by the  
20       record fetching means into one of page description language and raster data, and the additional image drawing means draws the additional image by converting the additional image into one of page description language and raster data.

25       45. The drawing processing device according to claim

34, further comprising:

generating means for, by application software, generating one or more objects for the one-page image; and

record file generating means for generating a record  
5 file including one or more object records corresponding to the respective one or more objects, the record file further including a background identification information located in front of an object record representing a background object, the background identification  
10 information indicating that a corresponding object is a background object, wherein

the determination means determines whether or not the object is a background object and the additional image drawing means draws the additional image after the  
15 background object has been drawn only if the application software is a presentation software.

46. The drawing processing device according to claim 34, wherein the determination means determines whether or not the object is a background object and the additional  
20 image drawing means draws the additional image after the background object has been drawn only if specified from an exterior.

47. The drawing processing device according to claim 34, wherein the additional image is in bitmap format.

25 48. The drawing processing device according to claim

34, wherein the additional image is a watermark.